

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims

1-26. (Cancelled)

27. (New) A system for providing a user station with access to service providing networks over a wireless radio access network, comprising:

a radio access network control node acting as a gateway node between access stations and the service providing networks;

connection processing means for adapting service providing network transport protocols, converting/mapping service network access bearers into transport protocol packets of the wireless radio access network, such that a user station can access the service providing network services over the radio interface of the wireless radio access network;

wherein the radio access network support node reuses a set of service network transport protocols for communication over the radio access network, the reused protocols being tunneled using the Internet Protocol (IP) through an access station connected to the radio access network control node, said set of service network transport protocols being the 3GPP RRC and RLC/MAC protocols modified to provide access to the service providing network comprising a 3G core network via an Iu-interface.

28. (New) The system according to claim 27, wherein the reused protocol stacks are reused transparently over the radio access network air interface.

29. (New) The system according to claim 27, wherein it supports multiple access bearer connections of different bit rates, types, bandwidth and/or QoS.

30. (New) The system according to claim 29, wherein it is capable of establishing one or more access bearers simultaneously wherein the access bearers are configured for different types of media services.

31. (New) The system according to claim 30, wherein the access bearers carry connections for a plurality of services of its associated types.

32. (New) The system according to claim 27, wherein the various services provided over access bearers comprise circuit switched as well as packet switched bearers.

33. (New) The system according to claim 27, wherein the service providing network is a 3G network, a BRAS IP services provider network, a video on demand network or a live TV network.

34. (New) The system according to claim 33, wherein the service providing network is a UMTS/WCDMA or CDMA 2000.

35. (New) The system according to claim 27, wherein the IP reused protocols are W-CDMA L3 RRC, L2 RLC/MAC.

36. (New) The system according to claim 27, wherein the adapted reused protocols multiple access bearers are set up simultaneously.

37. (New) The system according to claim 27, wherein it dynamically establishes a number of access bearers to a user station.

38. (New) The system according to claim 27, wherein the access station comprising a Home Base Station (HBS).

39. (New) The system according to claim 27, wherein it provides a user station with the possibility to access UMTS/CDMA/BRAS/Video on demand/Live TV service over an IEEE 802.11 network using OFDM based radio technology.

40. (New) The system according to claim 28, wherein it controls set-up and release of access bearers by reuse of the RLC/MAC and RRC protocols run over UDP/IP over radio interfaces between the access station and the user station, and over any transport protocol between the RANCN and the access station.

41. (New) The system according to claim 27, further comprising a gateway node between access stations of the wireless radio access network, an access station relaying RRC, RLC/MAC over any transport protocol used between the access station and the RANCN.

42. (New) The system according to claim 28, wherein UDP/IP and the Bluetooth or WLAN radio interface is used for RRC/RLC/MAC between service network and RANCN (3), and RANCN (3) and user station (1A,1B) respectively.

43. (New) The system according to claim 27, wherein storing means are provided in a radio access network control node for collecting, holding and sorting identity related information of user stations, and in that for user stations currently being in an area or a location fulfilling some given criteria, or e.g. being in a similar environment as far as service offering or tariff setting is concerned, information thereon is distributed to such mobile user stations having indicated that they want information about each other and that they allow information to be distributed to one another.

44. (New) The system according to claim 43, wherein several RANCN:s exchange identity related information about user stations currently in areas or locations in which certain criteria are met, e.g. in areas or locations with similar properties, e.g. as far as charging is concerned.

45. (New) A method for providing a user station with access to services of a service providing network over a wireless radio access network, comprising the steps of:

establishing a connection between the user station and an access station over the wireless radio access network;

initiating/establishing an IP session between the user station and a radio access network control node (RANCN);

adapting control and user plane transport protocols, comprising the 3GPP L2 RLC/MAC and L3 RRC protocols, of the service providing network to transport protocols of the wireless radio access network to provide access to the service providing network comprising a 3GPP core network e.g. UMTS, GPRS, WCDMA via the Iu-interface comprising converting/mapping service network access bearers into transport packets of the wireless radio access network; and,

using the adapted 3GPP network transport protocols over the radio interface of the wireless radio access network.

46. (New) The method according to claim 45, wherein the adapted and reused transport protocols of the service providing network are tunneled using the Internet Protocol (IP) through an access station connected to the radio access network control node (RANCN).

47. (New) The method according to claim 46, further comprising the step of providing the user station dynamically with access to various services over circuit and/or packet switched bearers of variable bandwidth, type and/or QoS.

48. (New) The method according to claim 47, further comprising the step of setting up multiple access bearers simultaneously.

49. (New) The method according to claim 45, further comprising the step of controlling in the RANCN, set-up and release of access bearers by adapting and

reusing the RRC, RLC/MAC and protocols such that they can run over UDP/IP over the interface protocol between the user station and the access station.

50. (New) The method according to claim 45, further comprising the step of dynamically establishing a number of access bearers to the user station connected to the RAN CN.

51. (New) The method according to claim 45, wherein the wireless radio access network is Bluetooth, the access station being a Home Base Station (HBS).

52. (New) The method according to claim 45, wherein the wireless radio access network is WIMAX or a wireless radio access network implementing an OFDM based radio technology or a WLAN.

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